SHORT COMMUNICATION

A NEW DISTRIBUTION RECORD FROM VICTORIA FOR THE BLOWFLY, CHRYSOMYA INCISURALIS (MACQUART) (DIPTERA: CALLIPHORIDAE)

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THERE IS SCANT knowledge about the basic biology of many Australian ealliphorids, and this is especially true of species that are not implicated in livestock myiasis or utilised forensically. Due to the lack of available data on such species, it is important that any information collected is documented. Here we present the first recorded occurrence of the blowfly *Chrysonya incisuralis* (Macquart) in Victoria. Previously, the species was thought to be limited to Queensland and New South Wales (Kurahashi, 1989).

Two gravid female *C. incisuralis* were captured at Coranderrk Bushland, Healesville (37°40'59S, 145°31'07E). The habitat at this site is damp sclerophyll forest dominated by *Eucalyptus cephalocarpa* (silverleaf stringybark), *E. aromaphloia* (scent-bark), *E. obliqua* (messmate stringybark), and *Coprosua quadrifida* (prickly currant bush). Both specimens were sweep netted (15 Feb 1999 and 8 Feb 2001) at still-born piglet carcasses that had been exposed for two and three days, respectively.

In Australia, the subfamily Chrysomyinae, to which *C. incisuralis* belongs, is distributed predominantly in the north (Colless & McAlpine 1991). Previously, the only *Clirysomya* species known to occur in Victoria were *Chrysomya rufifacies* (Macquart) and *C. varipes* (Macquart). However, *C. incisuralis* is easily distinguished from these species by its unusual colouration. It has a yellow abdomen, with tergites 1+2 to 4 each with a black hind marginal band and central metallic green/blue markings. It also has yellow legs, black tarsi and a metallic green thorax (Bezzi 1927, Malloch 1927).

While almost nothing is known about its biology (Kitching & Voeten 1977), *C. incisuralis* is thought to be a carrion-breeder like the con-generie *C. rufifacies* and *C. varipes* (Kitching 1976). However, while it has been bred from meat in the laboratory (Kitching & Voeten 1977), it has never been reared from carcasses in the field. It was also apparently reared from cow dung on one occasion, however it is unclear whether the species identification was correct in this case (Hardy 1940).

In southern Victoria, C. rufifacies and C. varipes occur only in warm to hot weather. They do not overwinter as adults or juveniles, and instead repopulate the southernmost portion of their range between November and March (M. Archer, unpublished data). It is probable that C. incisuralis also does this, as both specimens were captured in hot weather; temperatures recorded at the site at the times of capture were 29°C and 24°C, respectively. This probably rellects a requirement of the species for warmth, similar to that of C. rufifacies and C. varipes.

The species also seems to be uncommon in the south of Victoria as it was trapped only twice in three years of intensive work at the Healesville site. It was also not seen elsewhere around Melbourne during these three years at other carrion baits or carcasses. Possibly, *C. incisuralis* is more common in the north of the state where temperatures tend to be higher for a larger part of the year. Alternatively, conditions in Victoria may be largely unsuitable for the species, thus making its appearance a rare event.

REFERENCES

- BEZZI, M., 1927. Some Calliphoridae (Dipt.) from the South Pacific Islands and Australia. Bulletin of Entomological Research 17: 231-247.
- COLLESS, D.H., & McALPINE, D.K., 1991. Diptera. In *The Insects of Australia, Vol II* (2nd edn), I.D. Naumann, cd., McIbourne University Press, Melbourne, 717-786.
- HARDY, G.H., 1940. Notes on Australian Muscoidea, V. Calliphoridae. *Proceedings of the Royal Society of Queensland* 51: 133-146.
- KITCHING, R.L., 1976. The immature stages of the Old-World screw-worm fly, *Chrysomya bezziana* Villeneuve, with comparative notes on other Australasian species of *Chrysomya* (Diptera: Calliphoridae).

- KITCHING, R.L. & VOETEN, R., 1977. The larvae of Chrysomya incisuralis (Macquart) and Ch. (Eucompsomyia) semimetallica (Malloch) (Diptera: Calliphoridae). Bulletin of Entomological Research 16: 185-190.
- KURAHASHI, H., 1989. Calliphoridae. In Catalog of the Diptera of the Australasian and Oceanian Regions. N. L. Evenhuis ed., Bishop Museum Press, Honolulu, 702-718.
- MALLOCH, J.R. 1927., Notes on Australian Diptera. No. xi. *Proceedings of the Linnaean Society of New South Wales* 52: 299-335.

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